

Source Water Assessment and Protection Update

Information for DHS staff and LPA counties on the California Drinking Water Source Assessment and Protection Program (DWSAP)

Issue 2

June 2000



DWR Data is Only an E-mail Away

(for Southern California)

The Department of Water Resources (DWR) Southern District, located in Glendale, has staff that can assist you with the following data:

- Assigning state well numbers
- Locating well completion reports ("well logs")
- Determining the DWR ground water basin and sub-basin, if applicable
- Historical data on depth to ground water
- Historical Water Quality data (Minerals)

The DWR Southern District covers the following counties: Imperial, Inyo, eastern Kern, Los Angeles, southern Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara and Ventura.

To obtain this information send an e-mail message to Gary Gilbreath (garyg@water.ca.gov) (818-543-4653). In your message include the owner of the well (public water system), driller (if known), the date the well was drilled (if known), and the location (township/range/section).

Additional information can be found on the DWR Southern District Website: <http://www.dpla.water.ca.gov/sd>.

For the rest of the state more ground water information from all the DWR regional offices can be found on the Web at <http://well.water.ca.gov>. ❖

Mapping Tool Version 1 Released

To assist with the short-term source location effort, DHS asked UCD-ICE to release Version 1 of the mapping tool. If you used the tool you may have noticed that it is still a work-in-progress.

The mapping tool was hampered by the lack of space on the DHS server. To accommodate the limited space, the resolution of the USGS quad maps was brought down significantly, which affected the quality of the maps. This issue is now being addressed, both by increasing the space on the server and by using data compression software.

The mapping tool will be taken off line soon while major changes are made. We will notify DHS and LPA staff when a revised version is available. ❖

DWSAP E-forms Still in Development

The DWSAP electronic forms ("TurboSWAP") are not yet ready for release. UCD-ICE is working on report formats and other details. Lessons learned in the development of the GPS software will enhance the electronic forms.

Some forms are already available in electronic format. The Well Data Sheet is on the DHS website (see related article). The Source Location Form is also available. This form replaces Appendix A for surface water and Appendix H for ground water sources. ❖

Acronyms used in this Newsletter

DHS – California Department of Health Services, Division of Drinking Water and Environmental Management

DMS – GPS Data Management System (data dictionary software for GPS units developed by UCD-ICE)

GIS – Geographic Information System

GPS – Global Positioning System

LPA – Local Primacy Agency (a county that has been delegated primacy for the drinking water regulatory program for small water systems)

UCD-ICE – University of California, Davis Information Center for the Environment (DHS contractor for GIS, GPS and other data tools).

US EPA – US Environmental Protection Agency

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LPA GPS Data Management System Installation

The first version of the GPS Data Dictionary software ("GPS Data Management System" or DMS) has been installed at Tulare, Napa, Madera, Fresno and Merced counties.

Based on the experience with these installations, UCD-ICE is preparing Version 2 that includes some bug fixes, enhancements and reports. The next version should be ready in early July and we will then proceed with the remaining LPA installations.

The LPA installation visits are conducted by Leah Walker from DHS and Sky Harrison from UCD-ICE. LPAs should allow a half-day for the installation. The visit includes a refresher in the use of the GPS unit. When we contact an LPA to schedule the installation we need to know:

1. Have you received your GPS unit (if purchasing)?
2. Is it required that the DMS be used on more than one computer?
If yes, then a server-client installation is necessary.
What type of network are you running?
 - All NT (server and client)?
 - Novell-NT hybrid?
 - Other?
3. Does the computer(s) to be used for the DMS have:
 - 20 MB hard drive space?
 - Windows 95 or later version?
 - An Internet connection that can be readily used by the person using the DMS?
4. Will your computer personnel and system administrator be available during the installation?
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DHS Power Users GPS Training

DHS GPS installations will be accomplished via the Power Users Group. This group will be given a half-day **training on August 3, from 9 AM to 1 PM at UC Davis**. The Power Users will be instructed in how to install and operate the DMS and how to use the GPS unit.

Power Users will be expected to come to the class with a basic knowledge of GPS technology. The expected range of knowledge and an updated version of the GPS training manuals will be available on the UCD-ICE Website prior to the training (<http://swap.ice.ucdavis.edu/>). The Power Users will take the GPS units back to their district offices after the training. ❖

Scrambling of GPS Satellite Signals Discontinued

What Does This Mean for DHS and LPAs?

On May 2, 2000 the federal government discontinued "Selective Availability", a kind of intentional scrambling of GPS satellite signals. Many DHS and LPA staff have asked what impact this has on the procedures for the use of GPS units for locating drinking water sources.

The short answer is **the discontinuation of Selective Availability has no impact on the procedures that DHS will use for obtaining locations of drinking water sources.**

DHS and LPA staff will continue to use the specified GPS units (Trimble GeoExplorer II or III, or more advanced equipment such as the Trimble ProXR). Data will be transferred from the GPS unit and sent electronically to DHS using the GPS Data Management System developed by UCD-ICE (see related article).

Several of the reasons for proceeding with our carefully planned procedures are:

1. The GPS Data Management System is the means for the efficient transfer of data from the GPS unit to the DHS database, including the corresponding source identification number and other locational information.
2. Using the specified GPS units and GPS Data Management System allows us to differentially correct the data from the GPS units. With Selective Availability discontinued, GPS units may be capable of providing locations that meet the EPA standard of <25 meters, but we cannot be guaranteed that readings will be sufficiently accurate for all sources all the time. Differential correction is a small incremental effort that increases the accuracy and the reliability of the locations obtained with a GPS unit.
3. The future demands on the accuracy of the source locations are unknown. By using the GPS Data Management System and differentially correcting the data we will obtain the most accurate source location that we can achieve. This should eliminate the need to revisit a site to obtain a reading that meets future standards.

For more information about GPS and Selective Availability visit the Internet site <http://www.trimble.com>. ❖

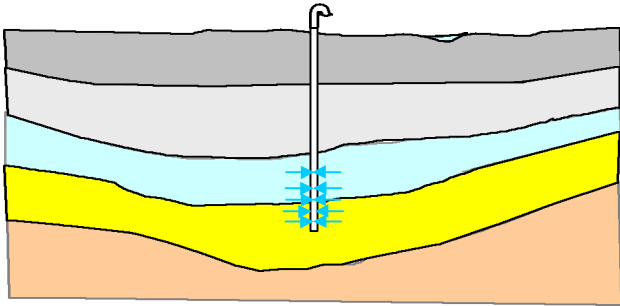


Short Term Source Location Effort

Many thanks go to DHS and LPA staff for obtaining and submitting source locations for the MTBE legislation effort.

Most of the data has been submitted and the DHS Data Management Unit is compiling the results. Staff will be notified if any problems are encountered with the information or the data transfer process.

DHS district offices and LPAs were resourceful in improvising various means of obtaining source locations. New technology and tools were adapted quickly. According to Paul Collins, Chief of the Data Management Unit, "Staff did a remarkable job in a short period of time."❖



DAC Update – Santa Clara Valley Water District

The DWSAP Data Advisory Committee (DAC) met on May 18, 2000, and heard a presentation by Roger Pierno of the Santa Clara Valley Water District. Roger demonstrated the District's sophisticated Geographic Information System (GIS).

The District issues all the well construction permits in Santa Clara County and maintains a database of approximately 30,000 wells of all kinds, including active water system and domestic wells, inactive, destroyed and abandoned wells, and extraction wells. Most of the wells are in a GPS layer and are correctly located relative to a parcel base map.

The District is also the local oversight agency for the underground fuel tank program. There are about 2,200 known fuel leak sites, of which about 1,800 are closed. These sites are also in the District's GIS.

The District recently added a GIS layer of 3,800 abandoned wells, which is still under development. Other layers in their GIS include landfills, watershed boundaries, land use, depth to water and confined, unconfined and bedrock aquifers

For more information contact Roger Pierno at rpierno@scvwd.dst.ca.us.

The next DAC meeting is scheduled for August 2, 2000, at UC Davis. The speaker will be Skip Campbell of the California Air Resources Board. Contact Leah Walker at lwalker2@dhs.ca.gov if you are interested in attending.

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Well Data Sheet Available on the DHS Website

By popular demand, we have placed the Well Data Sheet (WDS) on the DHS Website. The address is listed below.

The WDS is an Excel spreadsheet, the same version that was distributed via e-mail and hard copy previously. An example WDS is on the Website also, as well as the instructions for completing the form. The "Defects" sheet is also on the Website.

Hopefully, this will make it easier to distribute the Well Data Sheet to water systems that are doing their own assessments or applying for new permits.

The address is <http://www.dhs.ca.gov/ps/ddwem/dwsap/welldatasheet/instructions.htm>.

Get to it via the DWSAP index <http://www.dhs.ca.gov/ps/ddwem/dwsap/DWSAPIndex.htm>, or from the DDWEM home page <http://www.dhs.ca.gov/ps/ddwem/index.htm>.

It may be a little tricky to download the Well Data Sheet. These are procedures that have been successful.

1. Start Internet Explorer
2. Go to the Division of Drinking Water home page (see above)
3. Click on Drinking Water Source Assessment and Protection (left hand side of screen)
4. Click on "Well Data Sheet" from the list of choices on the left hand side of the screen
5. When you get to the Well Data Sheet page,
6. **RIGHT CLICK** on "Downloadable Well Data Sheet."
7. Choose "Save link as..." from the popup menu.
8. Navigate to the directory where you want to save the program.
9. Click "Save."

Now you have your own copy of the WDS, and you can modify it, copy it, save it, whatever...it's a regular Excel file on your disk now.

You may save all the well data sheets for one water system in one Excel file, and each well may be a sheet in the file. The "Defects" information must be kept on a separate sheet from the well data sheet.❖



Lake Berryessa Watershed Partnership Successful

DHS, with the support of US EPA, instigated the formation of the Lake Berryessa Watershed Partnership to coordinate water quality monitoring and contaminant management efforts. The partners, both public and private entities, have eagerly embraced the project and in the first year accomplished the following activities:

Initiated Communication and Identified Additional Partners

Since the first of the six meetings that have been held, a wide variety of entities have chosen to participate. They include:

- Government agencies (Federal, State and Local)
- Private businesses
- Environmental organizations

Drafted and Began Implementing a Contaminant Management Plan

The plan consists of a set of practices and recommendations for managing the contaminating activities at the lake and in the watershed. Napa County Department of Environmental Management has taken the lead on implementation with two recent projects: a workshop for marina operators and a series of household hazardous waste collection events within the watershed.

Began Creating a Water Quality Data Website

Solano County Water Agency and Napa County Department of Public Works have hired a design firm to create a website that will contain a water quality database for the entire Upper Putah Creek (Lake Berryessa) Watershed. The site will facilitate data sharing, research, and public education.

Began Coordinating Water Quality Monitoring

The partners have discussed creating a master sampling schedule, special water quality studies, consolidating monitoring activities, and standardizing the techniques used for sampling and analysis. A draft report has been prepared to formally document these ideas and provide guidance.

For more information about the project contact Dave Zensius at the DHS Santa Rosa District Office (707-576-2764 or dzensius@dhs.ca.gov), or Arnold Roessler, USBR (707-966-2111 x 102), or Frank Morris (Solano County Water Agency, 707-451-6916).
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Procedures for Review of LPA Invoices for DWSAP

1. LPA sends the invoice and documentation to DHS headquarters. An invoice form is available from Angela Duromola at aduromol@dhs.ca.gov. The invoice must include the contractor (LPA) name, the contractor address, the invoice number, the contract number and the billing period.
2. DHS headquarters checks for the invoice for required information, checks for documentation, compares against budgeted amounts and determines if there is enough money in the contract for the invoice.
3. DHS headquarters sends to the DHS District Engineer and Leah Walker, DWSAP coordinator.
 - District Engineer and Leah Walker have **5** working days to review the invoice.
4. District Engineer and Leah Walker send comments to DHS headquarters.
5. DHS headquarters then
 - rejects invoice w/ reasons,
 - requests additional information, or
 - approves invoice and processes for payment.

What DHS is looking for in LPA DWSAP Invoices

Note: LPAs are paid on expenses incurred, not on completed assessments

Personnel Expenses

- Title/ hours/ rate
- LPA to attach brief narrative - what were they working on?

Office Supplies/ Training

- LPA to attach copy of receipts if base cost per unit is over \$500

Equipment

- LPA to attach copy of receipts
- Any equipment expenditures not previously budgeted require DHS pre-approval

Submit all invoices to:
Department of Health Services
Source Water Assessment Program
Attention: Angela Duromola
P.O. Box 942732
Sacramento, CA 94234-7320

DWSAP Contact Information

Questions, comments or concerns about this update? Send them to Leah Walker at walker2@dhs.ca.gov or call 707-576-2295.

